

ABSTRACT OF THE DISCLOSURE

A method of manufacturing ULSI wiring in which wiring layers are separately formed via a diffusion prevention layer with an insulating interlayer portion made of SiO_2 . The method comprises the steps of treating, with a silane compound, an SiO_2 surface on which the insulating interlayer portion is to be formed, performing catalyzation with an aqueous solution containing a palladium compound, forming the diffusion prevention layer by electroless plating, and then forming the wiring layer on this diffusion prevention layer. Furthermore, a capping layer is formed on the wiring layer by electroless plating. Consequently, the diffusion prevention layer having good adhesive properties can all be formed through a simple process by wet processes, and further, the wiring layer can directly be formed on this diffusion prevention layer by the wet process. In addition, the capping layer can directly be formed on this wiring layer by electroless plating.